

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P226689

Luminaire Tested: **IST-AF-800-LED-E1-T4W-7030-ULG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226689  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35944)-DOWNLIGHT AND  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: IST-AF-800-LED-E1-T4W-7030-ULG  
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, WITH UPLIGHT GLOW  
Light Source: (16) 3000K CCT, 70 CRI LEDs and (1) UPLIGHT LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6276.4 lumens  
Efficiency: N/A  
Efficacy: 104.3 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U5 - G1  
  
Input Watts (W): 60.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

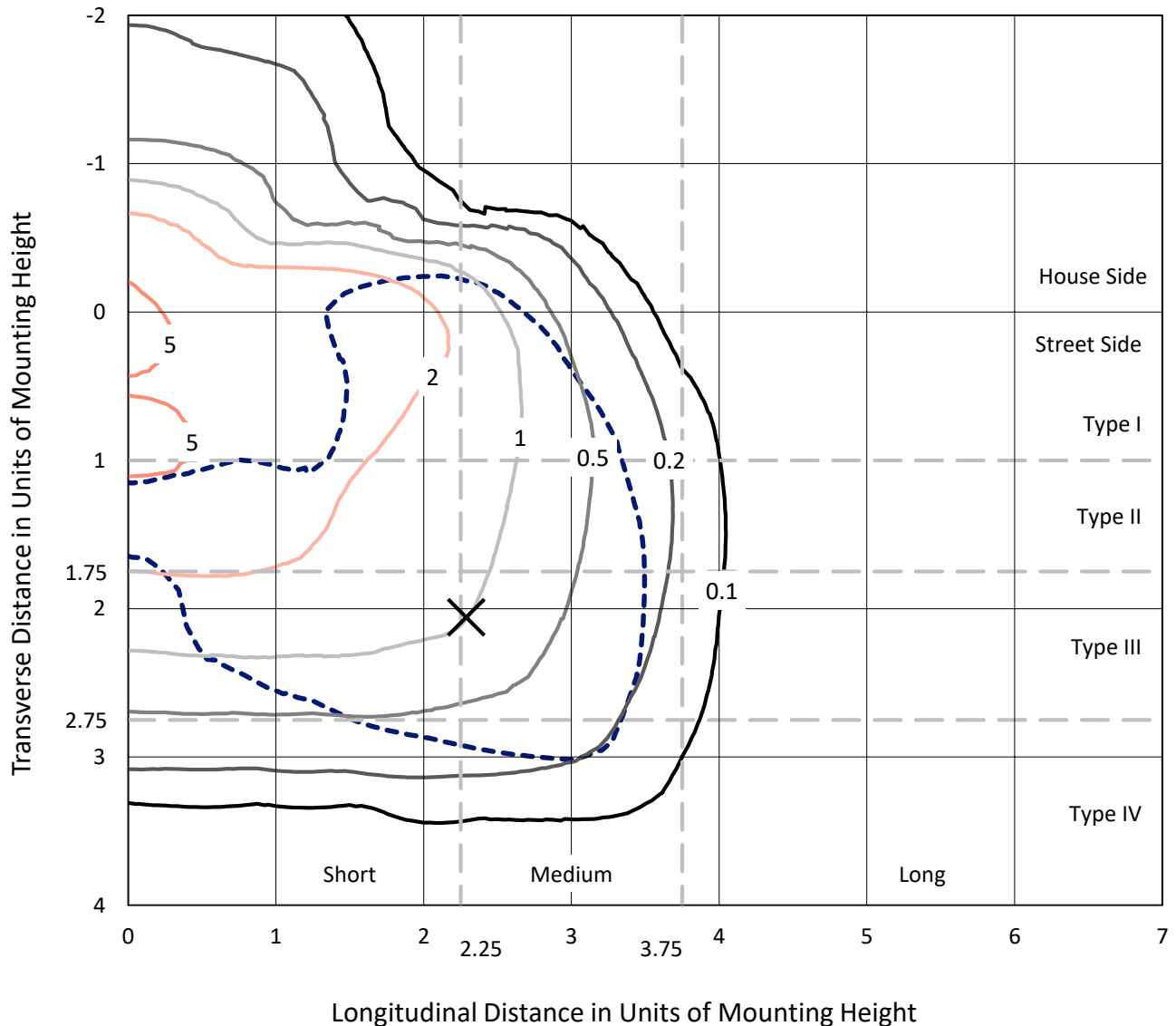


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### Iso-Footcandle Lines of Horizontal Illumination

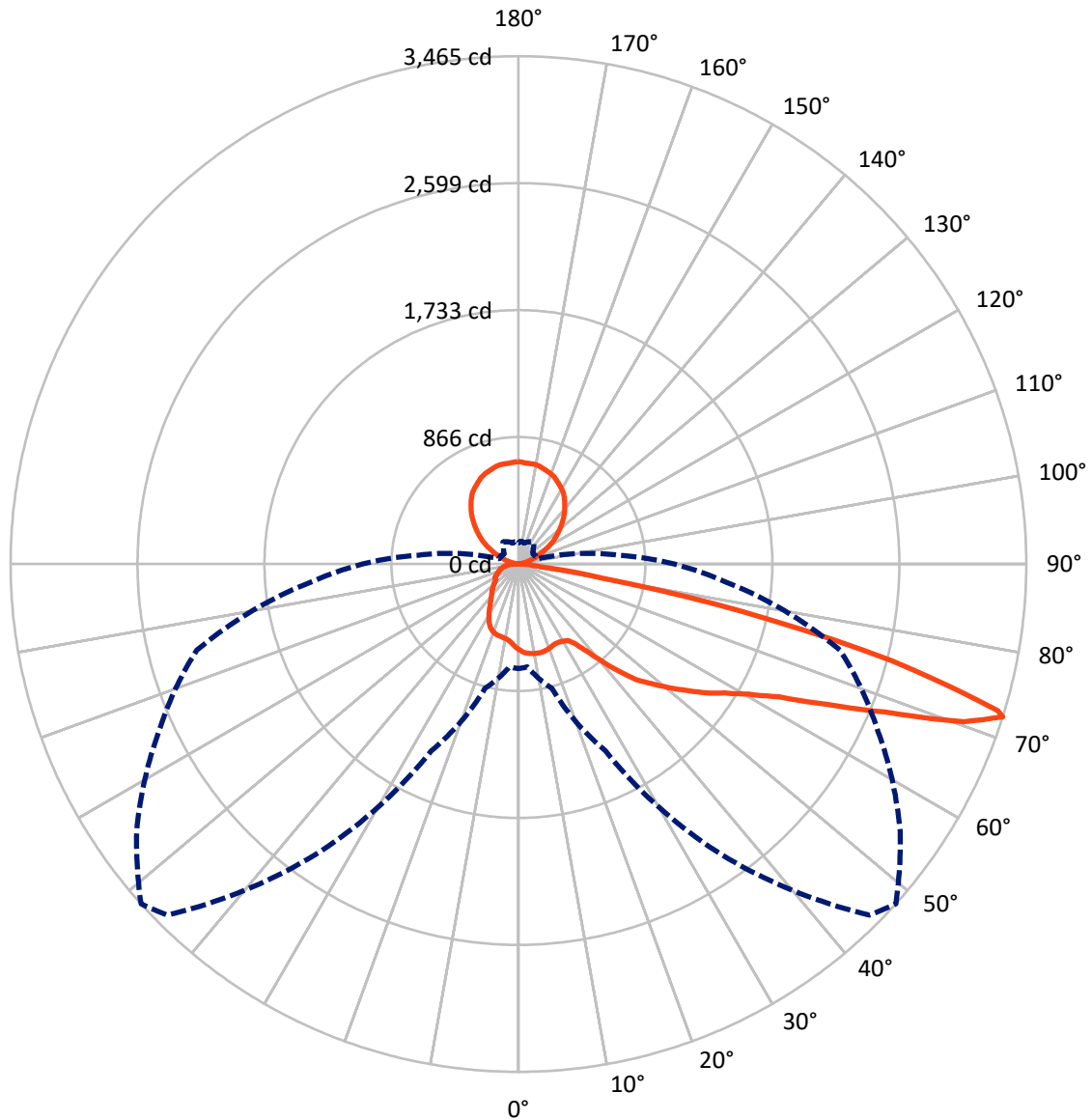
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.5 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 48-Deg Lateral    - - - Horizontal Cone Through 72-Deg Vertical

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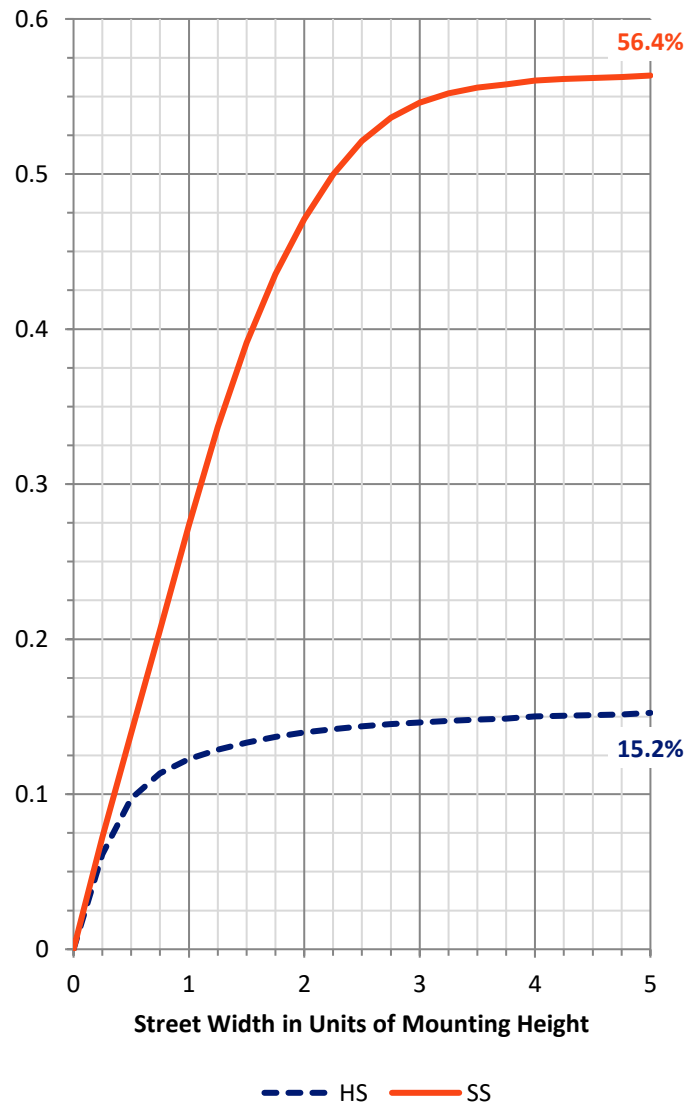
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	986.6	869.6	1856.2
	% Fixture	15.7	13.9	29.6
<b>Street Side</b>	Lumens	3551.9	868.3	4420.2
	% Fixture	56.6	13.8	70.4
<b>Total</b>	Lumens	4538.5	1737.9	6276.4
	% Fixture	72.3	27.7	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.2	0.9
10°-20°	161.3	2.6
20°-30°	248.8	4.0
30°-40°	372.9	5.9
40°-50°	620.9	9.9
50°-60°	970.3	15.5
60°-70°	1281.7	20.4
70°-80°	741.4	11.8
80°-90°	86.0	1.4
90°-100°	12.0	0.2
100°-110°	57.4	0.9
110°-120°	166.1	2.6
120°-130°	273.2	4.4
130°-140°	336.8	5.4
140°-150°	344.6	5.5
150°-160°	290.3	4.6
160°-170°	191.2	3.0
170°-180°	66.3	1.1
0°-90°	4538.5	72.3
0°-180°	6276.4	100.0



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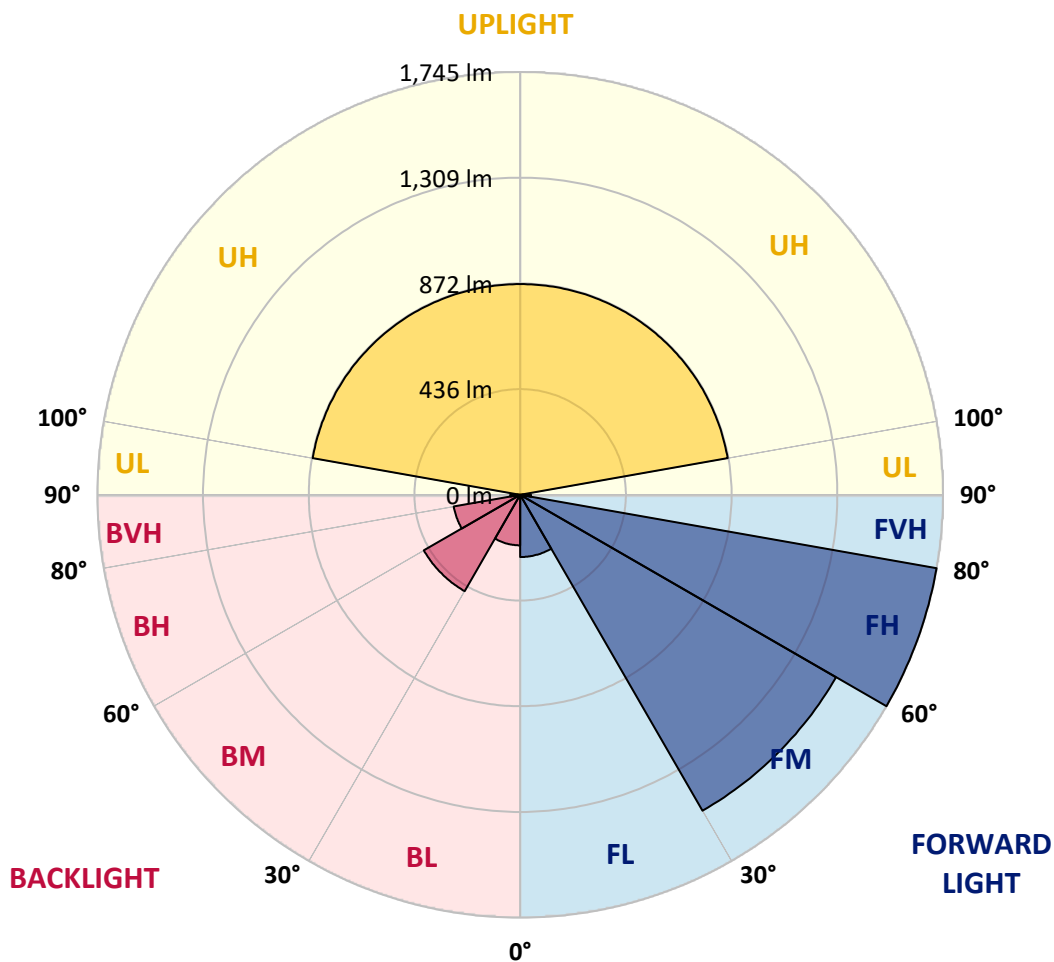
CATALOG NUMBER: IST-AF-800-LED-E1-T4W-7030-ULG

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	256.7	4.1			
FM	(30°-60°)	1505.2	24.0			
FH	(60°-80°)	1744.9	27.8			G1/1800
FVH	(80°-90°)	45.1	0.7			G1/100
BL	(0°-30°)	208.6	3.3	B1/500		
BM	(30°-60°)	458.9	7.3	B1/1000		
BH	(60°-80°)	278.2	4.4	B1/500		G1/500
BVH	(80°-90°)	40.9	0.7			G1/100
UL	(90°-100°)	12.0	0.2		U2/50	
UH	(100°-180°)	869.6	13.9		U4/1000	

**BUG Rating: B1-U5-G1**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
0°	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1
2.5°	615.0	614.4	614.4	609.1	607.1	603.8	601.2	597.3	593.3	588.7	582.8
5°	644.7	646.6	644.0	636.1	626.2	615.7	611.7	602.5	590.0	578.8	568.3
7.5°	673.0	673.6	666.4	653.2	638.1	621.6	616.4	603.8	590.0	574.9	559.7
10°	693.4	694.1	683.5	665.1	644.7	626.2	620.3	607.8	590.7	574.2	555.1
12.5°	705.3	705.9	690.1	671.0	646.6	628.2	622.9	609.8	592.0	570.9	549.8
15°	703.3	705.3	692.1	671.0	645.3	628.9	622.3	611.1	588.7	567.6	545.2
17.5°	690.1	692.7	682.2	659.2	638.7	625.6	618.3	607.1	585.4	563.0	538.7
20°	664.4	667.7	663.1	640.7	626.9	616.4	611.7	601.2	580.8	557.7	532.7
22.5°	635.5	638.7	637.4	619.0	612.4	607.1	602.5	594.6	576.8	553.8	530.1
25°	614.4	617.0	615.0	599.2	601.2	601.2	598.6	592.6	576.2	555.1	530.1
27.5°	649.3	649.3	632.2	599.9	596.6	602.5	601.2	597.9	584.7	561.7	535.4
30°	777.0	767.2	736.2	655.2	613.7	611.1	610.4	608.5	596.6	576.2	551.8
32.5°	919.9	910.0	873.2	771.8	685.5	628.9	622.9	623.6	620.3	601.2	576.8
35°	1047.0	1045.7	1016.7	906.8	796.8	691.4	667.7	651.9	650.6	642.7	623.6
37.5°	1149.7	1149.7	1152.4	1027.3	917.3	790.9	750.7	700.6	700.6	696.0	684.2
40°	1267.0	1272.2	1278.1	1136.6	1046.4	909.4	864.0	788.2	765.2	772.4	775.1
42.5°	1421.0	1427.6	1423.7	1271.6	1164.2	1051.0	995.0	903.5	846.8	858.7	886.3
45°	1525.1	1527.7	1556.0	1412.5	1312.4	1170.8	1123.4	997.6	941.7	966.0	1014.7
47.5°	1643.0	1649.5	1654.1	1572.5	1486.2	1306.5	1219.5	1089.2	1052.9	1089.8	1166.9
50°	1758.2	1749.6	1762.1	1758.8	1650.9	1427.0	1323.6	1174.8	1177.4	1227.4	1353.9
52.5°	1858.3	1829.3	1858.3	1894.5	1862.9	1550.8	1430.3	1275.5	1313.7	1374.9	1574.5
55°	1935.3	1865.5	1914.3	2017.0	2009.7	1660.1	1552.1	1409.8	1473.7	1557.3	1842.5
57.5°	1777.9	1786.5	1920.8	2099.3	2096.0	1770.7	1658.8	1577.8	1656.1	1749.6	2159.9
60°	1631.1	1669.3	1876.7	2112.5	2155.9	1891.2	1802.3	1768.7	1841.2	1955.1	2464.1
62.5°	1553.4	1589.6	1804.9	2088.1	2251.4	2069.7	1995.3	1969.6	2068.3	2196.1	2735.4
65°	1577.8	1600.2	1800.3	2125.0	2361.4	2339.6	2307.4	2264.6	2314.0	2433.8	2857.9
67.5°	1509.3	1546.2	1762.1	2190.2	2562.2	2668.9	2695.9	2649.8	2608.3	2591.9	2679.4
70°	1123.4	1159.0	1385.5	1920.8	2726.8	3240.5	3224.0	3069.9	2790.7	2557.6	2093.4
72°	713.8	703.9	877.1	1407.2	2423.9	3387.3	3465.0	3179.9	2707.7	2271.2	1421.7
72.5°	518.9	565.7	727.6	1251.1	2302.8	3307.0	3420.2	3144.3	2599.1	2145.4	1250.5
75°	126.4	133.7	174.5	448.4	1348.6	2488.5	2630.7	2429.2	1897.1	1273.5	554.5
77.5°	85.6	88.9	115.2	158.0	396.4	1419.1	1561.3	1341.4	848.8	433.3	246.9
80°	63.9	65.8	83.6	111.9	164.6	484.0	570.9	453.7	211.4	240.4	175.8
82.5°	44.8	46.1	63.2	82.3	109.3	113.3	150.8	166.6	137.0	157.4	102.7
85°	30.9	30.9	46.1	56.6	69.1	56.0	59.9	83.6	92.8	93.5	62.6
87.5°	16.5	18.4	27.0	36.2	36.2	25.7	28.3	42.8	52.0	56.0	37.5
90°	10.9	10.9	18.2	21.8	16.6	13.6	12.9	15.6	21.5	26.8	18.9
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	6.3	7.0	7.0	6.0	6.0
95°	5.0	5.0	6.0	7.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0
97.5°	7.0	7.0	8.0	8.0	9.0	9.0	9.9	12.0	10.0	9.0	8.0
100°	8.0	8.0	9.0	10.0	12.0	21.0	23.4	29.0	26.0	23.0	19.0
102.5°	11.0	11.0	13.0	18.0	27.0	40.0	43.0	50.0	47.0	42.0	39.0
105°	21.0	22.0	27.0	36.0	48.0	63.0	65.7	72.0	70.0	65.0	61.0
107.5°	41.0	42.0	49.0	58.0	73.0	88.0	90.1	95.0	94.0	90.0	87.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
110°	66.0	68.0	74.0	87.0	102.0	114.0	115.8	120.0	121.0	119.0	116.0
112.5°	99.0	99.0	106.0	121.0	134.0	143.0	144.5	148.0	150.0	149.0	147.0
115°	140.0	139.0	147.0	159.0	168.0	174.0	175.5	179.0	182.0	179.0	177.0
117.5°	184.0	184.0	189.0	197.0	202.0	205.0	206.8	211.0	215.0	210.0	208.0
120°	225.0	223.0	226.0	233.0	237.0	243.0	243.9	246.0	250.0	245.0	243.0
122.5°	263.0	260.0	261.0	267.0	271.0	277.0	277.6	279.0	283.0	278.0	276.0
125°	298.0	294.0	296.0	299.0	305.0	310.0	310.9	313.0	315.0	310.0	310.0
127.5°	330.0	329.0	329.0	333.0	339.0	340.0	341.5	345.0	346.0	346.0	345.0
130°	363.0	361.0	362.0	366.0	370.0	372.0	373.5	377.0	381.0	381.0	379.0
132.5°	396.0	394.0	393.0	401.0	404.0	405.0	406.8	411.0	416.0	414.0	414.0
135°	429.0	426.0	426.0	432.0	435.0	437.0	438.8	443.0	448.0	447.0	450.0
137.5°	460.0	457.0	459.0	460.0	464.0	468.0	469.5	473.0	475.0	476.0	481.0
140°	488.0	485.0	487.0	489.0	491.0	497.0	497.9	500.0	502.0	504.0	509.0
142.5°	518.0	515.0	517.0	518.0	521.0	525.0	525.6	527.0	533.0	533.0	534.0
145°	550.0	546.0	544.0	547.0	550.0	551.0	552.5	556.0	562.0	561.0	558.0
147.5°	575.0	572.0	571.0	574.0	574.0	575.0	576.5	580.0	585.0	586.0	583.0
150°	595.0	592.0	593.0	593.0	593.0	593.0	594.2	597.0	600.0	603.0	606.0
152.5°	611.0	608.0	608.0	609.0	610.0	610.0	610.3	611.0	614.0	618.0	623.0
155°	629.0	625.0	625.0	627.0	630.0	628.0	627.4	626.0	631.0	636.0	638.0
157.5°	646.0	643.0	643.0	644.0	646.0	645.0	644.7	644.0	648.0	650.0	650.0
160°	663.0	660.0	659.0	656.0	655.0	655.0	655.9	658.0	664.0	661.0	660.0
162.5°	673.0	669.0	669.0	665.0	661.0	663.0	664.2	667.0	671.0	670.0	668.0
165°	681.0	678.0	676.0	676.0	673.0	673.0	672.7	672.0	677.0	680.0	678.0
167.5°	690.0	687.0	684.0	686.0	688.0	685.0	682.9	678.0	684.0	688.0	688.0
170°	698.0	695.0	692.0	692.0	693.0	691.0	689.5	686.0	689.0	694.0	696.0
172.5°	699.0	697.0	695.0	693.0	690.0	690.0	689.7	689.0	692.0	694.0	696.0
175°	700.0	698.0	697.0	695.0	691.0	690.0	690.0	690.0	695.0	696.0	694.0
177.5°	707.0	705.0	700.0	699.0	697.0	695.0	694.7	694.0	699.0	701.0	698.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1	584.1
2.5°	581.5	577.5	572.2	569.6	568.3	565.7	563.0	561.7	561.7	559.1	559.7
5°	563.0	557.1	549.8	544.6	543.9	543.9	545.2	545.2	545.9	543.9	546.6
7.5°	553.8	547.2	536.7	530.7	526.1	525.5	528.1	533.4	536.0	534.0	536.7
10°	547.2	540.0	528.1	520.9	517.6	516.3	518.2	523.5	532.1	532.1	534.7
12.5°	540.6	531.4	519.6	514.3	511.7	512.3	514.9	518.9	528.1	531.4	532.7
15°	534.0	523.5	513.6	506.4	506.4	508.4	511.7	516.3	524.8	530.7	532.1
17.5°	527.5	516.9	508.4	502.4	502.4	505.1	508.4	514.3	520.2	528.8	528.8
20°	521.5	513.0	501.8	496.5	495.8	497.8	501.8	507.7	512.3	520.9	521.5
22.5°	518.2	507.7	497.2	489.3	486.0	484.7	488.6	494.5	499.1	507.7	509.0
25°	516.9	505.1	491.9	477.4	468.9	466.2	468.2	475.4	479.4	486.0	487.9
27.5°	521.5	510.3	489.9	463.6	445.8	438.6	440.5	445.1	446.5	453.7	457.0
30°	537.3	524.2	493.9	449.1	416.8	403.7	403.7	404.3	406.3	412.2	412.9
32.5°	563.0	550.5	505.7	434.0	387.2	368.8	364.1	360.9	360.9	360.2	360.9
35°	610.4	599.9	526.1	416.8	354.9	334.5	323.3	317.4	311.5	308.8	308.2
37.5°	678.9	669.7	555.1	397.1	326.6	306.2	292.4	280.5	273.9	273.3	276.6
40°	781.0	771.8	587.4	374.7	299.6	284.5	270.0	257.5	250.2	250.9	254.2
42.5°	906.8	878.4	622.3	344.4	277.9	270.0	254.2	243.6	236.4	232.5	231.8
45°	1053.6	1006.2	655.2	316.1	254.2	257.5	242.3	230.5	221.3	210.7	209.4
47.5°	1236.7	1133.9	684.2	287.8	228.5	244.3	229.8	218.6	204.8	192.3	190.3
50°	1427.6	1280.8	709.2	257.5	205.5	229.8	217.3	202.2	183.1	171.9	171.9
52.5°	1648.2	1457.3	741.5	223.9	187.7	214.0	201.5	181.7	165.9	164.6	164.6
55°	1893.8	1642.3	763.9	197.5	173.8	196.9	191.0	185.0	179.8	181.1	181.7
57.5°	2150.7	1835.2	744.1	179.1	162.6	192.9	210.1	202.2	185.7	185.0	184.4
60°	2371.9	1985.4	634.8	167.3	154.1	199.5	225.2	202.2	185.7	194.3	194.9
62.5°	2516.8	2056.5	422.8	152.1	141.6	188.3	219.9	196.2	186.4	210.7	212.7
65°	2497.0	1976.8	243.0	141.6	133.7	173.2	212.7	189.0	173.8	187.7	183.7
67.5°	2202.7	1656.8	175.8	137.0	127.7	162.6	199.5	178.5	162.0	179.1	171.9
70°	1583.0	1128.0	151.5	133.0	123.8	150.1	190.3	171.9	155.4	167.3	156.1
72°	1062.2	686.2	138.9	129.7	119.8	142.2	183.7	166.6	149.5	156.1	143.6
72.5°	904.1	541.3	135.7	128.4	118.5	140.3	181.7	165.3	148.2	154.7	142.9
75°	337.8	212.0	120.5	118.5	109.3	130.4	173.8	159.4	141.6	139.6	134.3
77.5°	173.8	134.3	102.7	104.7	98.1	119.2	165.3	150.1	130.4	123.1	120.5
80°	126.4	97.5	83.0	88.9	83.6	107.3	153.4	136.3	118.5	110.6	107.3
82.5°	79.7	60.6	63.2	70.5	71.1	94.8	139.6	122.5	105.4	98.8	93.5
85°	38.2	36.2	44.8	52.0	57.3	80.3	127.7	108.7	92.2	79.0	79.7
87.5°	20.4	27.7	27.0	34.9	44.1	65.8	113.3	88.9	73.8	59.3	59.9
90°	11.6	14.2	16.9	22.8	24.8	35.3	81.1	58.7	56.4	26.1	23.4
92.5°	6.0	6.0	6.0	7.0	7.0	6.0	6.0	6.0	5.0	4.0	4.0
95°	7.0	7.0	7.0	8.0	7.0	7.0	7.0	7.0	6.0	5.0	5.0
97.5°	8.0	8.0	9.0	10.0	12.0	9.0	9.0	8.0	8.0	7.0	7.0
100°	19.0	19.0	23.0	26.0	29.0	21.0	12.0	10.0	9.0	8.0	8.0
102.5°	38.0	39.0	42.0	47.0	50.0	40.0	27.0	18.0	13.0	11.0	11.0
105°	61.0	61.0	65.0	70.0	72.0	63.0	48.0	36.0	27.0	22.0	21.0
107.5°	86.0	87.0	90.0	94.0	95.0	88.0	73.0	58.0	49.0	42.0	41.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	117.0	116.0	119.0	121.0	120.0	114.0	102.0	87.0	74.0	68.0	66.0
112.5°	147.0	147.0	149.0	150.0	148.0	143.0	134.0	121.0	106.0	99.0	99.0
115°	178.0	177.0	179.0	182.0	179.0	174.0	168.0	159.0	147.0	139.0	140.0
117.5°	209.0	208.0	210.0	215.0	211.0	205.0	202.0	197.0	189.0	184.0	184.0
120°	243.0	243.0	245.0	250.0	246.0	243.0	237.0	233.0	226.0	223.0	225.0
122.5°	277.0	276.0	278.0	283.0	279.0	277.0	271.0	267.0	261.0	260.0	263.0
125°	310.0	310.0	310.0	315.0	313.0	310.0	305.0	299.0	296.0	294.0	298.0
127.5°	347.0	345.0	346.0	346.0	345.0	340.0	339.0	333.0	329.0	329.0	330.0
130°	380.0	379.0	381.0	381.0	377.0	372.0	370.0	366.0	362.0	361.0	363.0
132.5°	415.0	414.0	414.0	416.0	411.0	405.0	404.0	401.0	393.0	394.0	396.0
135°	451.0	450.0	447.0	448.0	443.0	437.0	435.0	432.0	426.0	426.0	429.0
137.5°	482.0	481.0	476.0	475.0	473.0	468.0	464.0	460.0	459.0	457.0	460.0
140°	511.0	509.0	504.0	502.0	500.0	497.0	491.0	489.0	487.0	485.0	488.0
142.5°	536.0	534.0	533.0	533.0	527.0	525.0	521.0	518.0	517.0	515.0	518.0
145°	560.0	558.0	561.0	562.0	556.0	551.0	550.0	547.0	544.0	546.0	550.0
147.5°	585.0	583.0	586.0	585.0	580.0	575.0	574.0	574.0	571.0	572.0	575.0
150°	610.0	606.0	603.0	600.0	597.0	593.0	593.0	593.0	593.0	592.0	595.0
152.5°	628.0	623.0	618.0	614.0	611.0	610.0	610.0	609.0	608.0	608.0	611.0
155°	641.0	638.0	636.0	631.0	626.0	628.0	630.0	627.0	625.0	625.0	629.0
157.5°	655.0	650.0	650.0	648.0	644.0	645.0	646.0	644.0	643.0	643.0	646.0
160°	666.0	660.0	661.0	664.0	658.0	655.0	655.0	656.0	659.0	660.0	663.0
162.5°	674.0	668.0	670.0	671.0	667.0	663.0	661.0	665.0	669.0	669.0	673.0
165°	682.0	678.0	680.0	677.0	672.0	673.0	673.0	676.0	676.0	678.0	681.0
167.5°	694.0	688.0	688.0	684.0	678.0	685.0	688.0	686.0	684.0	687.0	690.0
170°	701.0	696.0	694.0	689.0	686.0	691.0	693.0	692.0	692.0	695.0	698.0
172.5°	701.0	696.0	694.0	692.0	689.0	690.0	690.0	693.0	695.0	697.0	699.0
175°	699.0	694.0	696.0	695.0	690.0	690.0	691.0	695.0	697.0	698.0	700.0
177.5°	702.0	698.0	701.0	699.0	694.0	695.0	697.0	699.0	700.0	705.0	707.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0

(END OF REPORT)